

ABSTRACT

A method for the recovery of rhodium from spent supported catalysts. In one embodiment, a method for recovering rhodium from a host material includes roasting the host material in air at a temperature sufficient to convert at least a portion of rhodium to Rh_2O_3 , leaching the host material in a solution with a leaching constituent which is reactive with Rh_2O_3 to form a first intermediate species, reacting the first intermediate species in a solution with an acidifying constituent or complexing agent to form a second intermediate species, and purifying the second intermediate species. Preferably, the roasting temperature is approximately from 600°C to 800°C for 0.5 to 10 hours. In some embodiments, the host material is ground to particles in the range of 0.1 to 10 mm.